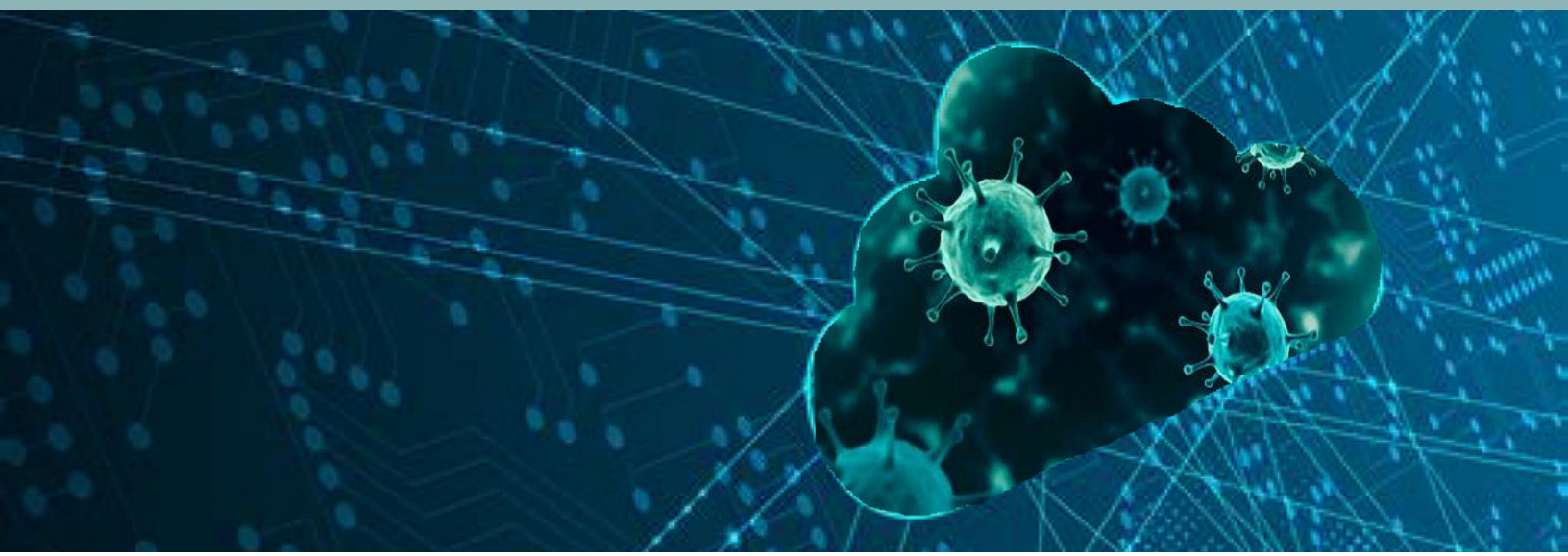
BACKGROUNDER

FRONTIER CENTRE FOR PUBLIC POLICY • No. 144 • FEBRUARY 2025



WHEN COVID-19 CLAIMS OF 'REVISIONISM' AND 'MISINFORMATION' ARE THEMSELVES MISINFORMED

A NARRATIVE REVIEW WITH IMPLICATIONS FOR POLICY DECISION-MAKING

By Ari R Joffe MD,
Pooya Kazemi MD, MSc,
Roy Eappen MDCM,
Chris Milburn MD, MSc

Note from the Editor:

This is an adapted version of the policy paper published on our website. We have revised the language of the original paper to make its ideas more accessible to a general audience. While the argument, structure, and evidence remain intact, this version uses less technical, medical, and scientific terminology. In case of any discrepancies between the two versions, the original takes precedence.

© 2025 FRONTIER CENTRE FOR PUBLIC POLICY

Introduction

A recent study described lockdown "revisionism" as spreading false information about lockdowns and other public health measures. This study examines the claim that simply questioning lockdowns or public health mandates is automatically labelled as "revisionism" or "misinformation." We argue that terms like 'revisionism' and 'misinformation' are often used to dismiss well-supported, opposing views without seriously examining the best available evidence.

We point out that brushing over important topics without properly considering all the facts weakens these claims. We need open and honest debate to learn valuable lessons for the future. Labelling reasonable criticism as 'misinformation' or 'revisionism' blocks this process.

Finally, one of the main lessons from the COVID-19 pandemic is that the focus should not be on fighting so-called "misinformation" or "revisionism." Instead, we should improve how decisions are made. This involves including experts from various fields, being transparent, carefully considering the pros and cons of different actions, and avoiding censorship and groupthink. These lessons are essential for the future of public health as it continues to learn from the pandemic.

"...the focus should not be on fighting so-called "misinformation" or "revisionism." Instead, we should improve how decisions are made.

Lockdown "revisionism" has been defined as spreading false information about lockdowns and other public health measures. We are concerned with terms like "revisionism" and "misinformation" because they often dismiss opposing, evidence-based conclusions without carefully evaluating the best available evidence. In this study, we use a recent publication by Murdoch and Caulfield, which discusses "lockdown revisionism," to show how their claims often skip over important details without fully considering the strongest evidence. As a result, many of their statements don't hold up under closer examination. Ironically, by doing this, Murdoch and Caulfield could be accused of engaging in the same "revisionism" they are trying to regulate and censor. However, we do agree with them on one key point: "People everywhere should develop the critical thinking and media literacy skills needed to see through mis-information."

We didn't conduct a formal, systematic review of the research. Instead, we critically analyzed the claims of misinformation made in the study by these so-called misinformation experts. We reviewed their references, which presumably represented the best evidence supporting their arguments, and then provided evidence supporting our own perspective. We acknowledge that our viewpoint may not align with the consensus of some official agencies, such as the WHO or

© 2025 FRONTIER CENTRE FOR PUBLIC POLICY

CDC. However, we believe that even widely accepted opinions should be subjected to transparent and critical analysis. In fact, there have been significant disagreements between countries, particularly between North America and Europe, highlighting the need for open scrutiny of official claims (see Table 1 for examples, page 15).

Misinformation is generally defined as false or misleading statements, whether shared accidentally (misinformation) or deliberately (disinformation). In this study, we focus solely on misinformation without addressing its intent.

Critically examining claims of misinformation about pandemic responses is important for several reasons. First, misinformation can prevent people from understanding the true costs and benefits of significant interventions, leading them to make choices they otherwise wouldn't. Second, misinformation can limit people's ability to make informed decisions by making it harder to align their actions with their preferences and to reason about their moral responsibilities. This happens when misinformation promotes false or unjustified beliefs, leading to a gap between people's concerns and actions and impairing their ability to think clearly about their moral obligations.

Our goal is to encourage thoughtful debate about claims of misinformation to help everyone better understand how effective—or ineffective—pandemic responses have been.

This review is structured as follows. First, we critically examine the claims of misinformation in the study. Second, we explore the key insights from this analysis. Finally, we conclude that the main lesson from the COVID-19 pandemic is not to focus more on fighting so-called misinformation and revisionism but to return to the principles of Emergency Management when making policy decisions.

© 2025 FRONTIER CENTRE FOR PUBLIC POLICY

Analysis of the Claims: Lockdowns

The Murdoch and Caulfield study claimed that "lockdowns" were framed as a false choice between strict or no measures, arguing that responses varied in severity and aimed to strike a complex balance. It also suggested that a meta-analysis of lockdown effectiveness was less convincing than other assessments, like the Oxford Stringency Index, which measures the strictness of lockdown measures. These claims are confusing. The meta-analysis in question has been updated several times, addressing earlier criticisms. It included studies that examined the impact of lockdown strictness, using the Oxford Stringency Index, on COVID-19 deaths. The conclusion from eight studies showed that, on average, lockdowns in Europe and the U.S. in early 2020 only reduced COVID-19 deaths by 3.2 percent, which amounts to preventing around 6,000 and 4,000 deaths, respectively. To put this in context, this is much lower than the number of deaths typically caused by the flu each year.

"The conclusion from eight studies showed that, on average, lockdowns in Europe and the U.S. in early 2020 only reduced COVID-19 deaths by 3.2 percent, which amounts to preventing around 6,000 and 4,000 deaths...

To give further perspective, in 2019, there were over 58 million deaths worldwide. Between January 2020 and July 2023, there were about 6.95 million deaths related to COVID-19, making up roughly 3.29 percent of global deaths during that time. If lockdowns prevented 3.2 percent of COVID-19 deaths, that would only account for about 0.105 percent of all deaths worldwide. While this is a simplified calculation, it helps provide some context for understanding the limited impact of lockdowns on overall mortality during the pandemic.

During the pandemic, the number of cases and deaths was often reported without enough context to help people interpret them correctly. For example, it's important to break down data by age group and provide rates (like the infection fatality rate) to understand the actual risks. Additionally, we need to compare COVID-19 deaths to other causes of death that society is generally willing to accept in trade-off for our freedom and well-being, such as deaths from tuberculosis, motor vehicle collisions, smoking, childhood diseases, and dietary risks.

Other studies have also found that stricter lockdowns didn't significantly reduce COVID-19 cases or deaths. For example, a Canadian study found little connection between stricter lockdowns and reduced case growth during the pandemic's first wave and none during the second wave. A recent systematic review confirmed similar findings, showing that stricter lockdowns prevented only 1 case for every 27.8 million people over three weeks and had no effect on death rates.

© 2025 FRONTIER CENTRE FOR PUBLIC POLICY

The assumption behind lockdowns was that reducing social interactions would stop the spread of the virus. However, lockdowns couldn't completely stop interactions and may have even shifted them to riskier settings, like multigenerational homes, essential businesses, and nursing homes, where the virus could spread more easily. Centralized lockdown mandates couldn't account for the varied risks people face in different situations, which individuals are better at managing based on their personal circumstances.

When studying lockdowns, it's important not to confuse correlation with causation. Many other factors influenced how the pandemic unfolded in different places, such as population density, healthcare access, and seasonal changes. Some studies have claimed lockdowns were effective, such as those referenced by the Lancet John Snow Memorandum, which said lockdowns were essential to reduce deaths. However, these studies have been challenged by others who pointed out flaws in their methods or the use of inaccurate data.

In summary, while lockdowns may have had some effect on reducing COVID-19 deaths, the overall impact appears to be much smaller than initially thought. The complexity of the pandemic, with many factors influencing outcomes, means that it's crucial to critically evaluate claims about the effectiveness of such measures.

© 2025 FRONTIER CENTRE FOR PUBLIC POLICY

The Great Barrington Declaration Explained

In their paper Murdoch and Caulfield have described the Great Barrington Declaration (GBD) as "scientifically discredited." However, "discredited" in this context seems to mean "condemned by most public health institutions and academics". They argued it introduced "controversy on uncontroversial topics" and contained "misinformed opinions," including ideas labeled "unscientific." Critics of the GBD claim it proposed "natural herd immunity"—the idea that allowing low-risk people to become naturally infected could protect high-risk people from the virus. Public health authorities and academics argued that this approach would lead to an "intolerable death toll" that could overwhelm healthcare systems, as it's impossible to protect only low-risk people fully, and it is uncertain who might be at higher risk. For instance, young people might develop lingering symptoms. Critics also pointed out that isolating certain populations might be unethical, noting that Sweden, which followed a less restrictive approach, had higher death rates than similar regions.

"…the public's perception of COVID-19 risks was often exaggerated, influenced by fear or inaccurate information, representing a communication failure.

We disagree that the GBD was "scientifically discredited." These critiques lack substantial evidence and seem to avoid actual debate. For example, early data on the original strain of SARS-CoV-2 indicated that its fatality rate was generally low for people under 70. For instance, it was estimated that less than 0.1 percent of infected individuals under 70 died from the virus, with rates being even lower among children and young adults. This suggested that SARS-CoV-2 was unlikely to overwhelm healthcare systems due to its impact on younger people. It was clear from early on that children were rarely severely affected by COVID-19, especially compared to illnesses like the flu, and that older people, especially those over 70, were at the highest risk, particularly those with multiple health issues. This clear difference in risk by age highlighted the need for focused protection of the most vulnerable rather than blanket restrictions.

Concerns about "long COVID"—lasting symptoms after initial infection—have been amplified and exaggerated by studies that often lack solid research methods. These studies usually did not have control groups and defined over 200 symptoms of varying severity, making it unclear how widespread or serious long COVID is. Particularly in children, the very existence of "long-COVID" is uncertain, as studies with proper control groups do not show an increase in symptoms in children who have had COVID versus those who have not.

© 2025 FRONTIER CENTRE FOR PUBLIC POLICY

It is puzzling to argue that isolating older people would have been unethical while enforcing isolation on the whole population was acceptable. Focused protection of older people could have been voluntary, not forced. As for Sweden, it has since been shown to have one of the lowest levels of excess deaths during the pandemic, with relatively modest economic consequences. Many suggestions for protecting the elderly without broad lockdowns have been offered, including by the authors of the GBD.

It's also important to clarify that not eliminating a virus doesn't mean herd immunity can't be achieved. For diseases like COVID-19, RSV, or the flu, where immunity after infection or vaccination doesn't completely prevent reinfection, a form of herd immunity still develops, reaching a stable level of immunity in the community. This "endemic equilibrium" helps limit the virus's impact, even though the virus can continue to circulate and reinfect as immunity naturally fades. In fact, when regular infections were interrupted during the COVID-19 pandemic, it created an "immunity debt," making people more vulnerable to other endemic viruses.

While public support for the GBD may have been limited, this alone doesn't disprove its scientific value. Research has shown that the public's perception of COVID-19 risks was often exaggerated, influenced by fear or inaccurate information, representing a communication failure. Many people overestimated the risks and overlooked the benefits of natural immunity, as well as the fact that vaccinated people could still spread the virus. This misunderstanding led to unnecessary blame on certain groups, moral judgments, and acceptance of the "new normal." Moving forward, it's crucial to address misinformation accurately and hold media and health officials accountable for informing rather than sensationalizing to gain compliance.

© 2025 FRONTIER CENTRE FOR PUBLIC POLICY

Cost-Benefit Analysis of Public Health Responses

Vaccine Efficacy

The claim that vaccines have "prevented millions of deaths" is based on a mathematical model. However, such models assumed that vaccines prevent death and transmission and didn't factor in costs like adverse reactions. Models also often failed to predict COVID-19 cases and deaths accurately. While vaccines may have helped protect high-risk individuals from severe disease, data suggests their effectiveness has been overstated.

For instance, booster vaccines have been promoted to maintain immunity, but their benefits diminish over time in months. In fact, studies show that additional doses sometimes offered less (that is, negative) protection over time against infection, without improving protection against severe cases. Among vaccinated people, particularly those with prior Omicron infections, more doses sometimes provided no extra protection against severe outcomes or death.

Studies have also raised concerns about "negative immune imprinting"—where frequent exposure to vaccines reduces the immune system's response to new variants of the virus over time. Additionally, because nearly everyone globally has now been exposed to the virus, natural immunity remains strong and long-lasting against severe COVID. Current studies indicate that the chance of preventing one hospitalization or death through additional vaccinations would require an extremely high number of vaccinations, leading to significant costs without meeting the usual cost-benefit standards.

Vaccine Mandates

While vaccine mandates were meant to increase vaccination rates, data shows they had a minimal impact, generally increasing uptake by less than 1 percent of the population. For example, in Canada, mandates increased initial vaccine doses by only 0.9 percent and had no impact on follow-up doses. In some cases, mandates even reduced the uptake of COVID-19 boosters and flu shots.

In England, a mandate for care home workers reduced unvaccinated staff but did not affect COVID-19 death rates among residents. In colleges, mandates did not significantly impact infection rates in surrounding communities. Also, studies didn't account for possible negative effects of mandates, such as adverse events in young people, including myocarditis—a heart inflammation condition that,

While vaccine mandates were meant to increase vaccination rates, data shows they had a minimal impact...

© 2025 FRONTIER CENTRE FOR PUBLIC POLICY

although rare, can be serious in some young men.

Mask Efficacy

Claims about masks effectively reducing infection rates have relied on studies with significant weaknesses, such as low survey response rates and biases in data collection. For example, studies supporting mask use had inconsistencies, with some showing no effect of cloth masks, and others showing minimal impact of mask-wearing in specific groups.

The most reliable evidence, which includes randomized controlled trials, shows that community masking has no effect on the spread of respiratory viruses like COVID-19. For children, the best studies found no significant effect of masks in preventing COVID-19 spread in schools. Additionally, prolonged mask use in children may have other impacts, like learning delays, difficulty recognizing emotions, and social development issues.

Public Health Measures Achieving Goals

Murdoch and Caulfield claim public health measures largely achieved their intended goals. However, the evidence is mixed at best. A 2021 review of studies on COVID-19 restrictions found that only a few studies had low bias, and many combined multiple restrictions, making it hard to judge the effects of individual measures.

For example, in the U.S., a study found that COVID-19 mortality rates were not directly linked to specific mandates like mask requirements or business closures. Instead, mortality was higher in regions with poor pre-pandemic health and socioeconomic conditions, like limited healthcare access, poverty, and inequality. Restrictions were also linked to declines in educational achievement, with lower reading and math scores associated with mandates.

Economic Effects

Murdoch and Caulfield assert that while strict restrictions hurt certain business sectors, Sweden's more relaxed approach did not benefit its economy compared to other Nordic countries. However, the economic impact of restrictions is complicated. Since most countries imposed similar measures, economies were interconnected, leaving even less-restricted economies, like Sweden, affected by the global downturn.

In Canada, restrictions were closely correlated with declines in retail sales, employment, and business activity, particularly during the first wave of the pandemic. However, when a mathematical model from the European Central Bank analyzed economic effects, it assumed that individuals would make decisions based only on their risk, ignoring effects on others, and that COVID-19 fatality risk for working adults was much higher than it actually was.

In the end, Sweden avoided much of the large new debt that countries like Canada now face and had one of the lowest rates of excess deaths among OECD countries from 2020 to 2023, along with less disruption to children's education.

© 2025 FRONTIER CENTRE FOR PUBLIC POLICY

Discussion and Implications

Confidence in Public Institutions

Murdoch and Caulfield argue that "lockdown revisionism"—re-examining the effectiveness of lockdowns—could cause "real harm" by setting a dangerous precedent. They believe it could erode trust in public institutions and reduce public willingness to comply with future life-saving measures during pandemics. They suggest that governments could address the spread of misinformation on social media through "increased regulatory scrutiny" and that health profession regulators should enforce evidence-based standards among their members.

While we agree that health professionals and politicians should base their actions on sound evidence, we are concerned by calls for "increased regulatory scrutiny" of social media and health professionals. Similar suggestions were made by Sule *et al.,* who proposed regulatory action against physicians who spread misinformation about COVID-19, calling for a co-ordinated government response. During the pandemic, this approach led to an appearance of consensus among experts, which was partly due to censorship. This "groupthink" and limited debate contributed to further censorship and a false impression of agreement among so-called experts.

Science progresses through open discussion and examination of evidence-based controversies. We believe this process was discouraged during the pandemic, and we argue that open debate should be encouraged, not stifled.

We also agree that "inaccurate historical accounts of public health responses should not be normalized." Based on the evidence we reviewed, we believe Murdoch and Caulfield are themselves perpetuating some inaccuracies about the pandemic response. In our view, declining trust in public institutions, like health agencies and expert panels, results from policies that weren't sufficiently evidence-based and a series of inaccurate claims. For instance, the U.S. CDC was reported to have made 25 major statistical errors, of which only 11 were later corrected. The CDC also recommended masking children as young as two years, a policy extended into 2023, which raises questions about its ability to provide consistent, evidence-based guidance.

A review of 77 studies on masks published in a CDC journal found that while over 75 percent of these studies concluded masks were effective, only 30 percent actually tested mask efficacy, and fewer than 15 percent showed statistically significant results. Sule *et al.* also appear to misrepresent the data, as they defined misinformation about vaccine and mask effectiveness as any claim that

"...declining trust in public institutions, like health agencies and expert panels, results from policies that weren't sufficiently evidence-based and a series of inaccurate claims.

© 2025 FRONTIER CENTRE FOR PUBLIC POLICY

contradicted CDC guidelines, regardless of independent evidence.

An analysis by Canada's Public Health Agency used a model that overstated the value of lockdowns, with reviewers describing it as flawed and unhelpful in evaluating these critical measures. Other mistaken assumptions in COVID-19 policy decisions have also come under scrutiny.

Trust in public institutions, once lost, is difficult to regain and must be earned back. We believe that policies labelled "necessary to save lives" were sometimes applied without a full assessment of evidence or cost-benefit considerations. Measures like strict lockdowns, mask mandates, and school closures, which were not generally recommended for a virus with the severity of COVID-19 in pre-pandemic plans, have proven ineffective and costly.

Rebuilding trust will require transparent discussion about mistakes made and acknowledgment of where public health measures fell short. Furthermore, the World Health Organization's treaty, which is currently being negotiated and encourages a broad "all-of-government" approach to make lockdowns easier to implement, should not be supported.

What Went Wrong?

We believe the primary mistake during the COVID-19 pandemic was failing to follow the established emergency management (EM) process. Instead of relying on tried-and-tested pandemic response plans, leaders appeared to create new approaches from scratch, often disregarding cost-benefit analyses and accountability. Some post-pandemic reviews seem to be "re-discovering" this EM process that should have guided pandemic response all along.

The Emergency Management (EM) process involves preparing for, minimizing, responding to, and recovering from emergencies, whether natural disasters or health crises. An Emergency Management Agency (EMA) oversees the co-ordination of response, including direct actions to address the immediate threat (like COVID-19 itself) and indirect issues caused by the pandemic and its response. EM principles apply to any public emergency, including pandemics. However, in this case, several critical mistakes were made in not following the EM process, like not engaging all stakeholders or allowing open debate on response options (see Table 2, page 17).

Ignoring the EM process led to significant and predictable "collateral damage," such as increased mental health issues, learning loss, unemployment, delayed healthcare, and rising social inequality. Research by Bardosh summarized this widespread harm, which was projected early in the pandemic to cause more long-term harm than the virus itself. Particularly affected were children, especially those from disadvantaged backgrounds. Globally, the impacts were even worse, with increases in poverty, food insecurity, missed childhood vaccinations, and rising gender violence and inequality.

Measures like prolonged social isolation should have been a red flag due to their strong link to increased mortality. Additionally, human rights infringements and a drift toward authoritarian approaches are concerning outcomes of the pandemic response. A recent review even concluded that, worldwide, deaths directly from COVID-19 may account for only a minority of the "excess

© 2025 FRONTIER CENTRE FOR PUBLIC POLICY

deaths" recorded during this period. Other deaths were likely due to healthcare disruptions, worsening chronic and infectious diseases, hunger, and mental health issues.

Public health, ideally, considers all aspects of health, not just one disease. The EM process is built to address foreseeable negative impacts and prioritize open discussion and evidence-based science, rather than relying on authority or broad claims of "The Science™."

A Defense of "We Didn't Know" Isn't Enough

While some might argue, "We didn't know" at the time, this defence is inadequate. Leaders implementing pandemic measures had a duty to consider both the benefits and potential harms. Before COVID-19, extensive published literature showed that lockdowns, school closures, and community mask mandates likely wouldn't offer enough benefit to justify their costs. At a minimum, leaders should have adhered to established pandemic plans and the EM process.

This also does not excuse dismissing experts who voiced concerns about these policies' cost-benefit balance. For example, Caulfield and others responded to a newspaper editorial suggesting a pandemic response focused on protecting seniors, preparing hospitals, and replacing fear with confidence. Their response misrepresented the arguments, overstated the COVID-19 threat, and minimized the harms of lockdowns.

Additionally, as we learned more about COVID-19, critical findings were overlooked or not adopted into policy. Examples include evidence on the strength of natural immunity, the inability of vaccines to stop transmission, and data on the limited impact and potential harms of community masking and school closures.

To restore trust, we believe public health and government leaders owe the public an explanation and apology for how they handled the pandemic. We support an independent scientific review to assess the effectiveness and costs of COVID-19 policies. Such a review could provide a foundation for a future public inquiry into these unprecedented measures.

Limitations of This Paper

One limitation of our paper is that it was not a comprehensive review of all pandemic literature. Instead, we focused on critically examining some of the best sources used to support the idea of "lockdown revisionism" or misinformation. In the spirit of evidence-based medicine, we aimed to present both sides of the debate and welcome open discussion on our findings.

© 2025 FRONTIER CENTRE FOR PUBLIC POLICY

Conclusion

Rather than fixating on so-called misinformation, future policies should rely on the EM process...

In summary, we draw three main conclusions:

1. We need open debate: Dismissing valid questions or labeling them "misinformation" or "revisionism" discourages the kind of rigorous discussion needed to learn from this experience.
2. Rediscover the EM process: Rather than fixating on so-called misinformation, future policies should rely on the EM process, involving a wide range of experts, transparency, and ongoing cost-benefit evaluations as new evidence emerges. This approach guards against censorship and groupthink.
3. An apology and accountability: To regain public trust, leaders may need to acknowledge mistakes, apologize, and support an independent commission to seek truth, accountability, and recovery.

These conclusions are essential for public health as they highlight ways to learn from the pandemic response and improve future resilience in public health crises.

© 2025 FRONTIER CENTRE FOR PUBLIC POLICY

Tables

Table 1. Some examples of disagreements about recommended interventions among official "consensus" organizations

Intervention during	Description of disagreements among the pandemic official "consensus"
Masking of Children	European CDC: never recommended masking children <12yo; WHO: did not recommend masking children <6yo, and recommended only in specific circumstances in children aged 6-11yo; European countries: none recommended masking children <6yo; UK and multiple Nordic countries: did not recommend masking children <12yo; US CDC: recommended masking children even 2yo when community disease levels are considered high.
Natural Immunity	CDC only finally acknowledged strong protection from natural immunity in 2022; Vaccine passports in the US and Canada did not consider natural immunity sufficient, and mandated vaccination for protection; Natural immunity against infection is exactly why vaccines work, and it is expected to be stronger given that exposure is to all parts of the virus, and also is expected to induce mucosal immunity to infection.
Vaccine in Children	"Denmark acknowledged that vaccinating children was not effective at curbing the spread of the virus and is no longer recommending vaccination against COVID-19 for most children." "[In fall of 2021] the UK JCVI provides an example of using the potential for net harm to advise against the primary vaccination series for 12-15 year olds."
Vaccine Boosters at Universities	"In North America, as of May 2022, at least 1000 colleges and university campuses required COVID-19 vaccination, and over 300 required boosters… Strong statements in support of mandates made in 2021 by organizations such as the Association of Bioethics Program Directors in North America, the American Civil Liberties Union and the Ontario Human Rights Commission are now obsolete." "Most countries outside of North America have not required or mandated booster doses for young healthy adults at universities… European countries, including the UK, France, Germany, Norway, Sweden and Denmark (to our knowledge) never had university-implemented mandates."

Cont'd next page...

© 2025 FRONTIER CENTRE FOR PUBLIC POLICY

Table 1. *Cont'd.*

Intervention during the pandemic	Description of disagreements among official "consensus"
Vaccine Boosters	"European CDC… recommended boosters in November 2021, priority was focused on those over age 40… recommended that first boosters be 'offered' with prioritization for those over 40 years, and now recommends second boosters for the 2022 autumn campaign only for those over age 60 and those with an immunocompromised status or high-risk medical condition." "[In the fall of 2021] the US CDC recommended boosters for all adults and recommended a second booster for all Americans aged 50 years or more for fall 2022." "In 2022, all EU/EEA countries recommended the administration of COVID-19 booster doses, mostly for older population groups such as those aged 60 years and above, individuals with underlying medical conditions and other selected groups…" The minimum recommended age for booster vaccination in autumn/winter of 2022 varied from 12 years [Liechtenstein, Slovakia], 18 years [e.g., Hungary, Lithuania], 50 years [e.g., Belgium, Denmark], 55 years [e.g., Malta], 60 years [e.g., Austria, Czechia, Estonia, Netherlands], to 65 years [e.g., Ireland, Finland, Latvia, Norway, Sweden].
Stringency Index	Severity and duration varied between jurisdictions.
School Closures	Duration varied between jurisdictions.

© 2025 FRONTIER CENTRE FOR PUBLIC POLICY

Table 2. The Emergency Management Process, and failures in this process during the SARS-CoV-2 pandemic

EM Step	Ideal during the SARS-CoV-2 pandemic	Failed realization during the SARS-CoV-2 pandemic
Step 1: Identification of the hazard.	The Hazard: SARS-CoV-2	The Hazard: COVID-19 This led to focus on case fatality rate (instead of infection fatality rate), and case counts (instead of infection and case rates stratified by age and underlying conditions), contributing to excessive fear.
Step 2: Selection and maintenance aim.	Aim: to minimize the impact of the hazard and response on the society of the jurisdiction	Aim: varied from "flatten the curve" to "eradicate SARS-CoV-2" to "protect the healthcare system" (each of which may have been an objective to consider in the Mission Analysis Step 5). This led to exclusive focus on COVID-19 cases while ignoring all other predictable impacts on society.
Step 3: Establish a Governance Task Force – to provide leadership for all policy, programs, and actions taken.	Governance Task Force: requires involvement of many diverse stakeholders, led by the most senior government official.	Governance Task Force: gave undue undue influence to public health and medical 'experts'. This led to groupthink, and, at best, a non-transparent and unclear task force.
Step 4: Risk/Hazard assessment.	Risk/Hazard assessment: the extreme age-dependent risk, and the predictable impacts on on critical infrastructure (including healthcare).	Risk/Hazard assessment: consisted of misleading slogans such as "we're all all in this together", "no one is safe unless everyone is safe", and "the virus does not discriminate." This led to blanket one-size-fits-all responses, and focus on healthcare solely for COVID-19.
Step 5: Mission Analysis – define objectives of what needs to be done.	Mission Analysis: include maintaining confidence in government by reducing fear; protecting seniors in long-term care homes and in the community with multiple comorbidities (i.e., focused protection); protecting critical infrastructure and essential services (i.e., ensure continuity of healthcare, education (an essential service), businesses, and economy). A tenet of mitigation is to protect those most at risk by separating them from the threat.	Mission Analysis: objectives seemed to be to induce fear (to ensure compliance with mandates), and to prevent COVID-19 cases to the exclusion of all else (by ending social interactions). This led to inadequate consideration of objectives compatible with the the ideal aim (Step 2), and predictable collateral damage.

Cont'd next page

© 2025 FRONTIER CENTRE FOR PUBLIC POLICY

Table 2. *Cont'd.*

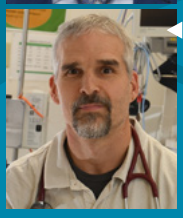
EM Step	Ideal during the SARS-CoV-2 pandemic	Failed realization during the SARS-CoV-2 pandemic
Step 6: Defining courses open/options – to determine how mission analysis objectives can be met.	Defining courses open/options: determine courses open for each grouping of tasks, by using previous pandemic plans and evidence, and assigning teams to each each task (with appropriate diverse expertise to prevent groupthink and encourage robust debate and critical scrutiny); cost-benefit analysis of each course open (with diverse expertise to ensure consideration of all cost-benefits, again with robust debate and critical scrutiny, aimed to justify choices between options); and planning for and preventing predictable collateral damage as much as possible. This might have included creating plans for: long-term care homes and for seniors in the community with multiple comorbidities; creating new surge capacity in hospitals (without sacrificing healthcare for non-COVID conditions); public communication (e.g., presenting risk in context), presenting hospitalization and death rates stratified by age (giving denominators, not raw case counts), and explaining difficult trade-offs); and to maintain societal function as much as possible (e.g., without closing schools, businesses, and economy).	Defining courses open/options: considered only those options instituted by neighboring countries, including lockdowns, mask mandates, and school closures to prevent social interactions, and de-emphasized expected severe collateral damage (by inducing fear, silencing opposition, slogans (e.g., "lives vs the economy"), and conveying consensus and certainty). This led to attempts to end social interactions that were ineffective, failed to focus protection on the most vulnerable, and lacked cost-benefit weighting (that led to predictable collateral damage). Healthcare surge capacity was not created, and existing resources were simply re-allocated by shutting down healthcare for conditions other than COVID-19.
Step 7: : Public issuing of a written evidence-based response plan.	Public Plan: to show transparent, demonstrably justified due diligence.	Public Plan: this was ignored altogether. This led to confusion, loss of trust, and lack of accountability
Step 8: Repeat this ongoing process.	Repeat: include considering new information as it accrues and seeking and considering public feedback.	Repeat: seemed to reject information contrary to chosen courses open by labelling it 'misinformation'. This led to continued attempts to end social interactions, mandate non-pharmaceutical interventions, and mandate vaccination that failed to consider accruing information on relative lack of efficacy and collateral harms.

© 2025 FRONTIER CENTRE FOR PUBLIC POLICY

AUTHORS

Ari R. Joffe MD, Department of Pediatrics, University of Alberta, Edmonton, Alberta, Canada; John Dossetor Health Ethics Center, University of Alberta, Edmonton, Alberta, Canada; Dr. Joffe is a pediatrician and Clinical Professor at the University of Alberta. He earned his MD degree at the University of Alberta in 1987. Dr. Joffe is a fellow of the Royal College of Physicians of Canada in Pediatric Infectious Diseases (completed at the University of Calgary in 1993) and Pediatric Critical Care Medicine (completed at the University of Toronto in 1995). He has practiced medicine at the Stollery Children's Hospital in the Pediatric Intensive Care Unit since 1995. Dr. Joffe has many publications on critical care medicine.

Roy Eappen MDCM, Department of Medicine, Division of Endocrinology, McGill University, Montreal, Quebec, Canada; Dr. Eappen is an adult endocrinologist at St Mary's Hospital in Montreal. He is an assistant professor of Medicine at McGill University. He earned his MDCM degree at McGill in 2025. Dr. Eappen is a fellow of the Royal College of Physicians in Internal Medicine with a special certificate in Endocrinology. He is a Fellow of the American College of Physicians and a Fellow of the American College of Endocrinology.



Chris Milburn MD, MSc, Faculty of Medicine, Dalhousie University, Halifax, Nova Scotia, Canada. Dr. Milburn is a family and ED physician who practices in Nova Scotia. He has had a long history of involvement with public health issues. Chris and his wife Julie Curwin (psychiatrist) run freespeechinmedicine.com and write at pairodocs.substack.com.

Pooya Kazemi MD, MSc, Department of Anesthesia, University of British Columbia, Victoria, British Columbia, Canada; Dr. Kazemi is an anesthesiologist in British Columbia. He earned his MD degree at the University of British Columbia in 2009 where he continued onto the anesthesiology residency program, earning his Fellowship in Anesthesiology with the Royal College of Physicians and Surgeons of Canada in 2014. He has been working in Victoria, BC as an anesthesiologist since 2014. Dr. Kazemi also earned an MSc in Health Informatics at the University of Victoria in 2020 and he has played important roles in implementation of various EMR projects at Island Health. During the COVID pandemic, Dr. Kazemi co-wrote several opinion pieces to urge governments to take a more evidence-based approach and employ nuance, balance, and context.

FRONTIER CENTRE
FOR PUBLIC POLICY

203-2727 Portage Avenue, Winnipeg, Manitoba Canada R3J 0R2
Tel: 204-957-1567
Email: info@fcpp.org

The Frontier Centre for Public Policy is an independent, non-profit organization that undertakes research and education in support of economic growth and social outcomes that will enhance the quality of life in our communities. Through a variety of publications and public forums, the Centre explores policy innovations required to make the prairies region a winner in the open economy. It also provides new insights into solving important issues facing our cities, towns and provinces. These include improving the performance of public expenditures in important areas such as local government, education, health and social policy. The authors of this study has worked independently and the opinions expressed are therefore their own, and do not necessarily reflect the opinions of the board of the Frontier Centre for Public Policy.

Copyright © 2025 by the Frontier Centre for Public Policy.
Backgrounder No. 144 • Date of First Issue: February 2025.
ISSN 1491-78

Reproduced here with permission of the authors.
Any errors or omissions and the accuracy and completeness of this paper remain the responsibility of the authors.

Ideas that change your world / www.fcpp.org